

CLAIMS

1. A display element comprising a first electrode, a luminescent layer, a second electrode, and a transparent substrate,

said first electrode comprising a metal layer and a corrosion-resistant charge injection accelerating layer,

said corrosion-resistant charge injection accelerating layer having been formed by subjecting a surface layer in said metal layer to plasma treatment using an oxygen atom-containing gas.

2. The display element according to claim 1, wherein said metal layer is formed of a metal selected from the group consisting of chromium (Cr), nickel (Ni), tungsten (W), manganese (Mn), indium (In), tin (Sn), zinc (Zn), molybdenum (Mo), vanadium (V), titanium (Ti), tantalum (Ta), niobium (Nb), and a mixture thereof.

3. The display element according to claim 1, wherein said metal layer comprises a laminate of one or more alloys and one or more metals.

4. The display element according to claim 1, wherein said first electrode reflects not more than 70% of light in the visible region incident through the second electrode side.

5. The display element according to claim 1, wherein said corrosion-resistant charge injection accelerating layer has a lower resistivity than the luminescent layer.

6. The display element according to any one of claims 1 to 5, which is used as an electroluminescent element.

7. A process for producing a display element comprising the steps of:

forming a metal layer on a substrate;

performing patterning on the top of the metal layer;

subjecting the surface of the metal layer to plasma

treatment using an oxygen atom-containing gas to convert the surface of the metal layer to a corrosion-resistant charge injection accelerating layer;

forming a luminescent layer on the corrosion-resistant charge injection accelerating layer; and

forming a second electrode on the luminescent layer.

8. The process according to claim 7, wherein, after the formation of the corrosion-resistant charge injection accelerating layer, the luminescent layer is formed on the corrosion-resistant charge injection accelerating layer without cleaning the substrate.

9. The process according to claim 7, wherein the formation of the luminescent layer on the corrosion-resistant charge injection accelerating layer is carried out under a degree of vacuum of not more than 1×10^{-2} Pa.

10. The process according to claim 7, which further comprises the step of, after the formation of the corrosion-resistant charge injection accelerating layer, coating a liquid composition comprised of an electrically conductive polymer doped with an inorganic acid or an organic acid or a liquid composition comprising said electrically conductive polymer onto the corrosion-resistant charge injection accelerating layer.

11. The process according to claim 7, wherein, in forming the corrosion-resistant charge injection accelerating layer, the plasma treatment is regulated to regulate the thickness of the corrosion-resistant charge injection accelerating layer.

12. The display element according to any one of claims 1 to 6, which has been produced by the process according to claim 7.